AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning on page 17, line 25 and ending on page 18, line 10 as follows:

By contrast, in a ductile hinge based design according to the present invention, only the hinge itself deforms during expansion. The typical ductile hinge 32 is not a long narrow beam as are the struts in the known stents. Wall thickness of the present invention may be increased to 0.005 inches (0.127 mm) or greater, while hinge width is typically 0.002 - 0.003 inches (0.0508 - 0.0762 mm), preferably 0.0025 inches (0.0635 mm) or less. Thus, in this embodiment the hinge width is smaller than the hinge thickness or the hinge width is no grater than 60% of the hinge thickness.

With a typical strut width of 0.005 to 0.006 inches the hinge width is at least 50% smaller than the strut width.

Typical hinge length, at 0.002 to 0.005 inches (0.0508 - 0.0127 mm), is more than an order of magnitude less than typical strut length. Thus, the ratio of b:h in a typical ductile hinge 32 is 2:1 or greater. This is an inherently stable ratio, meaning that the plastic moment for such a ductile hinge beam is much lower than the critical buckling moment M_{crit}, and the ductile hinge beam deforms through normal strain-curvature. Ductile hinges 32 are thus not vulnerable to buckling when subjected to bending moments during expansion of the tissue supporting device 20.

On page 18, line 11, please insert the following paragraph:

According to one embodiment a transition between the cross sectional area of the struts and the cross sectional area of the ductile hinges is an abrupt transition which extends less than 10 percent of a length of a strut. A ratio between a length of the ductile hinges to a length of the struts is 1:6 or less.